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ABSTRACT

Project Technological Enrichment and Achievement for Cambodians and Hispanics (TEACH) served limited-English-proficient (LEP) students from several Caribbean and Central American countries and Cambodia at Theodore Roosevelt High School (Bronx, New York). The goals of the program were to help LEP students adjust academically and culturally to life in the United States, and to prepare students for the job market. Instruction was provided in English-as-a-Second-Language (ESL), native language arts, and vocational and career subjects. Bilingual teachers taught content area and vocational/career subjects to Spanish-speaking students, and English-speaking teachers, assisted by two Khmer-speaking paraprofessionals, taught the Cambodian students. Project TEACH achieved its ESL, staff development, and attendance objectives, and met two of its three vocational/career objectives. (VWL)

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OREA Report

EVALUATION SECTION REPORT

TECHNOLOGICAL ENRICHMENT AND ACHIEVEMENT
FOR CAMBODIANS AND HISPANICS
PROJECT TEACH
Grant Number G008425058
1988-89

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EVALUATION SECTION
John E. Schoener, Chief Administrator
April 1990

EVALUATION SECTION REPORT

TECHNOLOGICAL ENRICHMENT AND ACHIEVEMENT FOR CAMBODIANS AND HISPANICS PROJECT TEACH

Grant Number G008425058
1988-89

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TECHNOLOGICAL ENRICHMENT AND ACHIEVEMENT
FOR CAMBODIANS AND HISPANICS
(PROJECT TEACH)
1988-89

SUMMARY

- Project TEACH was fully implemented. During the 1988-89 school year, students received instruction in English as a Second Language (E.S.L.), Native Language Arts (N.L.A.), and vocational/career subjects. The project provided staff development, and parental involvement activities, including E.S.L. classes for parents.

- The project met its objectives in English as a Second Language, staff development, and attendance. It met two of its three objectives for vocational/career subjects. OREA was unable to evaluate objectives for parental involvement and Native Language Arts.

Project Technological Enrichment and Achievement for Cambodians and Hispanics (Project TEACH) completed the second year of a two-year extension of Title VII funding. Its goals were to help students of limited English proficiency (LEP) adjust academically and culturally to life in America. Project TEACH also prepared students for the job market by providing bilingual instruction in computer and other business-oriented courses. Project TEACH, located at Theodore Roosevelt High School in the Bronx, served 180 students in the fall and 191 in the spring. Sixty spoke Khmer and the remainder spoke Spanish.

Participating students enrolled in E.S.L., Spanish N.L.A., and in the vocational/career courses in business, business arithmetic, and computers. The project offered staff development and activities for parental involvement, including an E.S.L. course for parents. The project selected students primarily on the basis of scores achieved on the Language Assessment Battery (LAB).

Project TEACH achieved its E.S.L., staff development, and attendance objectives. It also met two of its three vocational/career subjects objective. The Office of Research, Evaluation, and Assessment (OREA) could not determine whether project TEACH had met its parental involvement objectives because of a lack of data. It was likely that the project had failed to meet these objectives; the project director described the parents of participating students as being uninvolved in the education of their children. OREA also lacked data to evaluate the N.L.A. objective since students were administered non-parallel forms of La Prueba de Lectura.

The project had two major weaknesses: the inability of the program to offer Khmer N.L.A. classes and counseling, and the low level of parental involvement.

The conclusions, based on the findings of this evaluation, lead to the following recommendations:

- Hire a part-time or full-time qualified Khmer-speaking staff member, if a qualified individual and funds are available.

- Explore the possibility of opening a family literacy center to increase the level of parental involvement.

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I. INTRODUCTION

This report documents the Office of Research, Evaluation and Assessment's (OREA's) evaluation of the Division of High Schools (D.H.S.) project, Technological Enrichment and Achievement for Cambodians and Hispanics (Project TEACH). Project TEACH was in the fifth year of a five year funding cycle by Title VII of the Elementary and Secondary Education Act (E.S.E.A.) The Pupils with Compensatory Educational Needs (P.C.E.N.) program funded one of the staff members. The project provided Spanish- and Khmer-speaking students (180 in the fall and 191 in the spring) at Theodore Roosevelt High School with bilingual instruction in computer technology and business.

HISTORY OF THE PROGRAM

Theodore Roosevelt High School has offered bilingual educational programs to students of limited English proficiency (LEP students) since 1975. These programs focused primarily on Spanish-speaking students, who presently constitute about 58 percent of the school population. In recent years the Asian population at the school has grown from four percent in 1985 to almost eight percent in 1988. Project TEACH was created in 1983 to provide both Hispanic and Cambodian LEP students at the school with English as a Second Language (E.S.L.), bilingual, and career-oriented instruction. For a more detailed description of the history of the program, as well as its previous activities and outcomes, see the final evaluation reports for 1986-87 and 1987-88.

SETTING

Theodore Roosevelt High School is located in a low-income area in the central Bronx. It was the only high school in the city of New York to be declared drug-free last year.

PARTICIPATING STUDENTS

The project served LEP students from several Caribbean and Central American countries and Cambodia. All students came from low-income families. The political and/or socioeconomic conditions in their home countries interrupted the educations of many. Over 68 percent of the project students had been academically delayed and were over-age for their grade level. (See Table 1.) Many had fewer than eight years of education, and some were illiterate in their native language. A high student turnover rate, often resulting from students' frequent visits to their home countries, was a problem. Other problems arose from the fact that family poverty required many students to take after-school jobs.

STAFF

Title VII paid 40 percent of the salaries of the project director, a resource teacher, and a bilingual secretary, and the entire salaries of an educational assistant and a family assistant. The P.C.E.N program funded a Khmer-speaking educational assistant, who tutored project students and contacted their families when necessary. Tax-levy funds supported the remaining counselors and teachers in the project.

TABLE 1

Number of Program Students by Age and Grade*

Age	Grade 9	Grade 10	Grade 11	Grade 12	Total
14	3	1			4
15	6	8	1		15
16	19	13	9		41
17	6	17	10	5	38
18	2	5	23	9	39
19	4	6	17	8	35
20	1	5	10	5	21
21		4	4	2	10
22				2	2
TOTAL	41	59	74	31	205

Over-Age Students

Number	32	37	54	17	140
Percent	78.0	62.7	73.0	54.8	68.3

Note. Framed boxes indicate expected age range for grade.

* As of June 1989.

- Over two-thirds of the project's students were over-age for their grade.

The project director and resource teacher had master's degrees; the other three staff members had earned some college credits.

Theodore Roosevelt High School's Department of Foreign Languages and Bilingual Education supervised Project TEACH. The Mathematics Department supervised mathematics classes. The project director felt that this centralized structure made it easy to maintain good communication and coordination among staff serving the LEP students. On the other hand, she expressed the feeling that centralization would have been more effective had there been a separate bilingual/E.S.L. department.

DELIVERY OF SERVICES

Project TEACH provided instruction in E.S.L., Native Language Arts (N.L.A.), and vocational/career subjects. Bilingual teachers taught content area and vocational/career subjects to Spanish-speaking students. English-speaking teachers, assisted by two Khmer-speaking paraprofessionals, taught the Cambodian students. All program students joined mainstream students for music, art, gym, and some business classes.

REPORT FORMAT

This report is organized as follows: Chapter II describes the evaluation methodology; Chapter III presents the activities and an analysis of the implementation findings of the evaluation; Chapter IV gives student outcome data; and Chapter V offers conclusions and recommendations based upon the results of the evaluation.

II. EVALUATION METHODOLOGY

The evaluation assessed two major areas: program implementation and outcomes. Evaluation questions included the following:

EVALUATION QUESTIONS

Process/Implementation

- Did the program select students for program participation according to specific criteria?
- Did the program recruit qualified staff?
- Did the project implement the instructional activities for developing English language proficiency as proposed?
- Did the project implement the instructional activities for developing native language proficiency as proposed?
- Did the project provide in-service training as proposed?
- What percent of parents of participating students visited the program during the school year?
- What percent of parents of participating students attended evening classes?

Outcome

- What was the average Normal Curve Equivalent (N.C.E.) gain on the Language Assessment Battery?
- What percentage of Spanish-speaking students made gains on La Prueba de Lectura?
- What percentage of program students passed their career and/or computer classes?
- What percentage of program students passed their courses in mathematics, science and social studies?
- What percentage of program students passed their business arithmetic courses?

- What percentage of program students in the Bilingual Career and Business/Computer Program were partially mainstreamed in the career/business program?
- How did the attendance rate of program students compare with that of mainstream students?

EVALUATION PROCEDURES

Sample

An OREA field consultant interviewed the project director and Theodore Roosevelt High School's principal. She observed classes in E.S.L. and keyboarding. OREA supplied a student data form for each student. The project returned 186 forms in the fall and 205 in the spring semester.

Instruments

OREA developed interview and observation schedules for the use of the field consultant. Project personnel completed OREA-developed student data forms to report demographic, attendance, and achievement information. The project director completed an OREA-developed questionaire.

Data Collection

The OREA field consultant conducted interviews and observations in the early spring of 1989. OREA furnished the student data forms and the project director's questionnaire in January and May and collected them in February and June.

Data Analysis

OREA used the Language Assessment Battery (LAB) to assess improvement in English proficiency. Project TEACH students were tested at grade level each spring. Students' raw scores were converted to Normal Curve Equivalent (N.C.E.) scores, which have multiple advantages over other scoring methods. They are standard, normalized, and form an equal interval scale. ("Standard" indicates that the unit of measurement is a fraction of the standard deviation of the original distribution of raw scores; "normalized" refers to the fact that the scale is adjusted for the norm group so that its distribution has the shape of a normal distribution; and "equal interval scales" allow for legitimate aggregation or averaging of scores). Project students' N.C.E.s indicated their standing in relation to the national average of 50.

To assess the significance of students' achievement in English, OREA computed a correlated *t*-test on LAB N.C.E. scores. The *t*-test determined whether the difference between the pre- and posttest scores was significantly greater than would be expected by chance variation alone.

To insure representative achievement data, OREA included only those students who had been in the program for at least five months and had attended classes for at least 100 school days. OREA extrapolated to estimate full-year scores of late-arriving and early-exiting students.

Limitations

Since all LEP students are entitled to receive bilingual and E.S.L. services, OREA was unable to select an equivalent control group. However, the use of two sets of data, as outlined above, served in lieu of a control group.

III. EVALUATION FINDINGS: IMPLEMENTATION

Project TEACH students took E.S.L., N.L.A., and vocational/career-oriented courses. The project provided activities for staff development and parental involvement.

STUDENT PLACEMENT AND PROGRAMMING

Students who scored below the twenty-first percentile on the Language Assessment Battery (LAB)* were eligible for Project TEACH. The project also relied on interviews and records, parental requests, and feeder school and teacher recommendations to select students for the program.

The average student stayed in the program for about two-and-a-half years. After they achieved scores above the twenty-first percentile on the LAB, they entered the mainstream and an English-only program. Project TEACH continued to provide mainstreamed students with counseling, job placement, and other support services.

INSTRUCTIONAL ACTIVITIES

Project TEACH provided E.S.L., N.L.A., and vocational/career instruction.

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*The Board of Education of the City of New York developed the Language Assessment Battery (LAB) to measure the English-language proficiency of non-native speakers of English in order to determine whether they can participate effectively in classes taught in English. Students scoring below the twenty-first percentile on the LAB are entitled to bilingual and E.S.L. services.

English as a Second Language

Theodore Roosevelt High School offered beginning, intermediate, advanced, and transitional levels of E.S.L. LAB scores, scores on teacher-made exams, guidance referrals, and interviews determined student placement. Elementary and intermediate E.S.L. students had three periods of instruction daily, advanced and transitional students, two. One period of each was a reading class.

An OREA field consultant observed an advanced E.S.L. Regent's Competency Test (R.C.T.) preparatory class. Two classes joined together, and students watched the film Stand and Deliver. After the movie, students enthusiastically discussed the film, drawing parallels with students' problems and concerns. At the end of the discussion, students wrote compositions, in English, about the film. A Cambodian paraprofessional assisted, when necessary, with translations of vocabulary. The paraprofessional also provided instruction to the students on an individual basis.

Native Language Arts

Theodore Roosevelt High School placed Spanish-speaking students in one of seven levels of Spanish N.L.A. classes. An introductory reading and writing class was available for students who were semiliterate in Spanish.

Since the school was unable to recruit a qualified Khmer-speaking teacher, it could not offer Khmer N.L.A.

Vocational/Career Subjects

Project TEACH offered students four computer skills and career awareness courses. The language of instruction was English, and a paraprofessional translated the lesson into Spanish or Khmer when necessary.

An OREA field consultant observed a keyboarding class. The teacher began the hour with a brief lecture. Students paired off to work on a time skills test involving numbers and headings. The teacher offered feedback to the students on what they had typed. A Spanish-speaking paraprofessional moved from desk to desk, looking at students' work and helping them with the lesson.

NONINSTRUCTIONAL ACTIVITIES

Project TEACH offered staff development and parental involvement activities.

Staff Development

The program objectives for staff development were:

- One hundred percent of the staff will be involved in in-service training such as in the development of computer-assisted curriculum suitable for E.S.L., native language arts, and content areas.
- Fifty percent of the staff will be involved in other than in-service training, including courses, professional seminars, workshops, and conferences.

Project TEACH offered various types of staff development activities. Within the school, the departments held monthly meetings on issues such as curriculum development. The project offered after school workshops in E.S.L. and N.L.A. techniques.

Outside of the school, staff development activities included an Office of Bilingual Education and Minority Language Affairs (OBEMLA) Management Conference and a conference designed to elaborate new guidelines for LEP students. Program teachers attended courses in multicultural education and career awareness, the resource teacher attended a course in computer programming, and the family assistant attended courses in E.S.L. and mathematics. Project TEACH met both of its staff development objectives.

Parental Involvement

The program objectives for parental involvement were:

- At least 60 percent of the parents of student participants will visit the program once during the year to check on the progress of their children.
- At least 80 percent of the parents will participate in evening classes for high school equivalency preparation, E.S.L. instruction and/or career/computer training.

Project TEACH held monthly meetings for the parents of project students and formed a support group for them. Parents attended Parent Advisory Committee (PAC) meetings and cultural events, including Dominican Independence Day and the Chinese New Year. Project TEACH also offered parents E.S.L. classes. The project did not provide information on numbers of parents in attendance at any of these activities, therefore OREA could not determine whether Project TEACH had met either of its parental involvement objectives. OREA surmised that neither had been met,

since the project director spoke about a lack of parental involvement. The director suggested that a parent literacy center be set up as a means of interesting parents in becoming more involved in their children's education.

IV. EVALUATION FINDINGS: OUTCOMES

INSTRUCTIONAL ACTIVITIES

English as a Second Language

The evaluation objective for English language development was:

- As a result of participation in the program, E.S.L. students will make statistically significant gains in English language achievement, as measured by the LAB.

The project provided complete LAB scores for 122 students. Overall, these students made a mean N.C.E. gain of 9.9 (s.d.= 5.6), which was statistically significant ($p < .05$). (See Table 2) Therefore, Project TEACH met its E.S.L. objective.

Native Language Arts

The evaluation objective for Spanish native language development was:

- As a result of participating in the program, Spanish-speaking students will make statistically significant gains on La Prueba de Lectura.

Project students took non-parallel forms of La Prueba de Lectura, the Spanish reading test, in the fall and spring. OREA was therefore unable to compare scores and evaluate the N.L.A. objective.

Vocational/Career Subjects

The evaluation objectives for vocational/career subjects were:

- At least 70 percent of the students enrolled in the career and/or computer classes will attain the criterion level set on teacher-made exams.

TABLE 2

Pretest/Posttest N.C.E. Differences on the Language Assessment Battery, by Grade

Grade	Number of Students	Pretest Mean	Pretest S.D.	Posttest Mean	Posttest S.D.	Difference Mean	Difference S.D.	t value
9	22	6.3	6.2	12.9	9.9	6.6	9.1	3.41*
10	36	10.8	10.2	16.9	13.5	6.0	11.5	3.15*
11	50	12.4	9.6	17.4	12.6	4.9	9.2	3.76*
12	14	24.1	5.2	24.2	9.9	0.1	8.4	0.06
TOTAL	122	12.2	10.0	17.2	12.4	5.0	9.9	5.57*

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$p<.05$

- Students in ninth through eleventh grades and students overall made significant gains on the LAB.

- At least 70 percent of the students enrolled in business arithmetic will attain the criterion level set on teacher-made tests.

- At least 25 percent of the participants in the bilingual career and business/computer program will be partially mainstreamed in the English language career/business program at Theodore Roosevelt High School.

The project reported grades for 81 students in the fall and 85 students in the spring who took career and computer classes and business arithmetic. In the fall, 90.1 percent (73) of these students passed; in the spring 90.6 percent (77) passed. Project TEACH, therefore, met the first two vocational/career objectives.

OREA was unable to evaluate the third objective due to a lack of data.

NONINSTRUCTIONAL ACTIVITIES

Attendance

- Participants in the bilingual program will have an overall attendance rate higher than that of mainstream students at Theodore Roosevelt High School.

Attendance was a high priority for Project TEACH, which tried to determine the cause and find a solution for the poor attendance. Whenever a student was absent more than three times, the project sent a letter home and also called the students' parents. In more serious cases, the family assistant visited the family.

The project reported data for 148 students, who had an attendance rate of 89.1 percent. For mainstream students, it was of 82.8 percent. Therefore, the project met its attendance objective.

V. CONCLUSIONS AND RECOMMENDATIONS

In its fifth year of E.S.E.A. Title VII funding, Project TEACH offered instruction in E.S.L., N.L.A. where available, and vocational/career subjects to 180 Khmer- and Spanish-speaking LEP students in the fall semester and 191 in the spring. The program also provided staff development and parental involvement activities, including weekly E.S.L. lessons for parents.

Project TEACH met its objectives in E.S.L., staff development, and attendance. It partially met objectives in vocational/career subjects, since it achieved two of the three objectives for this area. Because of lack or inadequacy of data, OREA could not determine whether it had met objectives in parental involvement or N.L.A..

Project TEACH had two liabilities, the lack of Khmer-speaking professional staff and the lack of parental involvement. Theodore Roosevelt High School was unable to hire a Khmer-speaking teacher. Without qualified personnel, Project TEACH could not offer N.L.A. or counseling in the native language to the 60 Khmer-speaking students served by the project. While there were no data on the numbers of parents visiting the project or attending the E.S.L. classes, the project director spoke of low levels of parental involvement. She suggested that a family literacy center would benefit parents and increase their involvement in their children's education.

The conclusions, based on the findings of this evaluation, lead to the following recommendations:

- Hire a part-time or full-time qualified Khmer-speaking staff member, if a qualified individual and funds are available.
- Explore the possibility of opening a family literacy center to increase the level of parental involvement.